How do we get the best outcomes from NHS Health Checks? workHORSE: an NIHR-funded Health Technology Assessment of the NHS Health Checks Programme.

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Introduction

Previous studies suggest that the NHS Health Checks Programme (NHS HCP) might be improved by facilitating local commissioning and by including additional conditions. Hence the key question: *What is the potential for health and equity gains and cost effectiveness of the NHS Health Check Programme?* Building on a previous programme of work around the NHS HCP, we have commenced a two year NIHR HTA funded project; workHORSE: (working Health Outcomes Research Simulation Environment) led by Professor Martin O'Flaherty. The key aim is to provide a validated, open source, open access, flexible model enabling local commissioners to quantify the potential of the NHS HCP by building on the solid foundation of our existing, validated IMPACT^{NCD} model.

Results of Pilot Studies

Our pilot studies suggest the NHS HCP may need to be targeted and performance optimised, to be cost effective and reduce health inequalities. Our national study suggested that universal screening might prevent or postpone approximately 19 000 cases and 3000 deaths; concentrated screening 17 000 cases and 2000 deaths. Our local evaluation for Liverpool found that current implementation was not likely to reach an 80% chance of cost effectiveness before 2040, while optimised implementation was cost effective by 2030 and a more targeted scenario was cost effective by 2040 while also reducing inequalities.

Objectives of this Project

1: Model Development. We will further develop our proven and tested computer model to allow for changes to the NHS HCP and diseases it addresses. We will extend our model, to develop a validated, stochastic microsimulation environment, including a prototype user interface to model the implementation of the NHS HCP at local level. The diseases included are heart disease, stroke, diabetes, and kidney disease, dementia, atrial fibrillation; alcohol misuse, cancers and chronic obstructive pulmonary disease.

2: Updating the evidence base to support model and scenario development. We will update and conduct a series of focused systematic reviews (SRs) to help inform model development and delivery. We will focus on existing evidence-based guidelines and systematic reviews.

3: Assessing and comparing the alternative strategies for implementation of the NHS Health Check Programme. We will explore the effectiveness of the Health Check Programme. Health economic analysis will include cost utility (cost per QALY) analysis and distributive equity.

4: Engaging with stakeholders to powerfully strengthen the user perspective to inform desirable features and scenario design. We will recruit and engage a diverse group of stakeholders in four workshops to refine desirable features of the user-friendly model and identify additional scenarios to test. This process will be closely integrated with model development and evidence synthesis activities.

5: Developing a sustainability and implementation plan to deploy workHORSE as a user-friendly web-based decision model at local levels. We will develop a plan so that workHORSE can be used more widely.

We would value any input from stakeholders in terms of what scenarios and outcomes the model should include. To find out more or to get involved, please contact Lirije Hyseni, L.Hyseni@liverpool.ac.uk, Martin O'Flaherty, moflaher@liverpool.ac.uk, Ffion Lloyd-Williams F.Lloydwilliams@liverpool.ac.uk